

LM8003 **Preliminary CMOS IC**

3 SIRENS AND MACHINE GUN WITH 2 LEDS

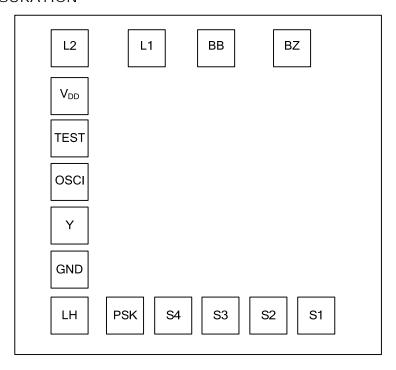
DESCRIPTION

This chip is a CMOS LSI designed for the applications, such as game box, toys ..., and so on. It is easy for you to design your consumer products using minimum application circuit. The sound can be selected to Fire Engine Siren, Ambulance Siren, Police Siren and Machine Gun sound mode. Sequence function from S1 to S4 and One shot or Sequence and Level hold function can be programmed by changing push down different switch.

FEATURES

- * 2.0V ~ 5V power supply
- * 2 LEDS flash
- * Low power consumption
- * BB&BZ output directly drive piezo buzzer.
- * 3 Sirens and Machine Gun sound
- * One shot or Sequence and Level hold function option

■ PAD CONFIGURATION



■ PAD FUNCTION

PAD NAME	DESCRIPTION			
NC	No Connect			
BZ	Sound output pin 1			
BB	Sound output pin 2			
L1	LED output pin.			
L2	LED output pin.			
V_{DD}	Positive power supply			
TEST	Test pin			
OSCI	Oscillator input pin			
Υ	Oscillator output pin			
GND	Negative power supply			
LH	Level Hold			
PSK	Sequence function from S1 to S4 sound			
S4	Machine Gun sound			
S3	Police Siren sound			
S2	Ambulance Siren sound			
S1	Fire Engine Siren sound			

■ ABSOLUTE MAXIMUM RATING

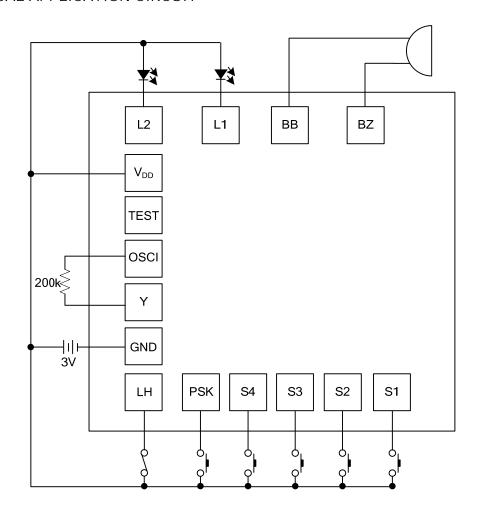
PARAMETER	SYMBOL	RATINGS	UNIT
DC Supply Voltage	V_{DD}	2~ 5	V
Input/Output Voltage	V _{IN}	GND-0.3~V _{DD} +0.3	V
Operating Temperature	T_{OPR}	-10~60	°C
Storage Temperature	T _{STG}	-25~125	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta=25°C, V_{DD}=3.0V, GND=0V, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Operating Voltage	V_{DD}			3.0		V
Standby Current	I _{STB}	V _{DD} =3V, I/O open		2	100	uA
Operating Current	I _{OP}	V _{DD} =3V, I/O open		0.1	0.5	mΑ
BZ, BB Driving Current	lo	V _{DS} =1V	10			mΑ
LED sink Current	I _{LED}	V _{LED} =1.8V		20		mΑ
Oscillator Frequency	Fosc	$V_{DD}=3V$	125	150	175	KHz

TYPICAL APPLICATION CIRCUIT



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